

# Manage your cold room energy consumption with Cantek OCTOSENSE

Achieve energy savings of between 30% and 70



Smart Energy Management



Electricity Savings



Cooling Optimization



Real-Time Monitoring



Performance Indicators



Measurement



Up/Down Buttons



Functional Button



Upload Button



System On/Off Button



Instant Temperature Indicator



Celsius / Fahrenheit



Measurement Indicators



Manual Defrost Button



Lighting On/Off



Temperature Setting Button

## Intelligent Cold Room Management

Octosense™ is a cooling controller specially designed for cold storage users, developed with Octopush™ technology, which enables remote cold room management, at the Cantek R&D centre.

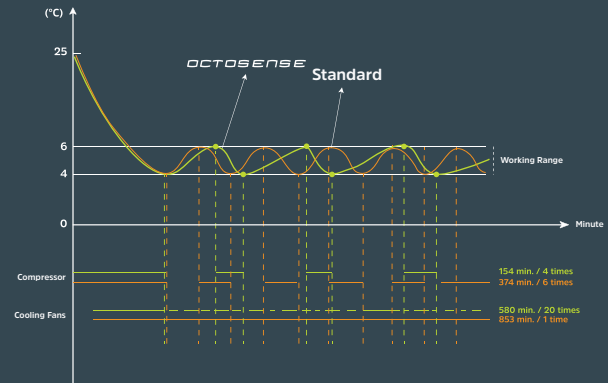
- ✓ Managed by smart and learning algorithms
- ✓ Instantly identifies the needs of the warehouse
- ✓ Does not perform unnecessary defrosting
- ✓ Does not run the compressor unnecessarily
- ✓ Uses cooling energy to the fullest
- ✓ Cools quickly when needed
- ✓ Returns moisture adhering to the evaporator back to the cold room
- ✓ Does not waste energy; provides exceptional energy savings

**You can manage your electricity bill efficiently at the end of the month.**

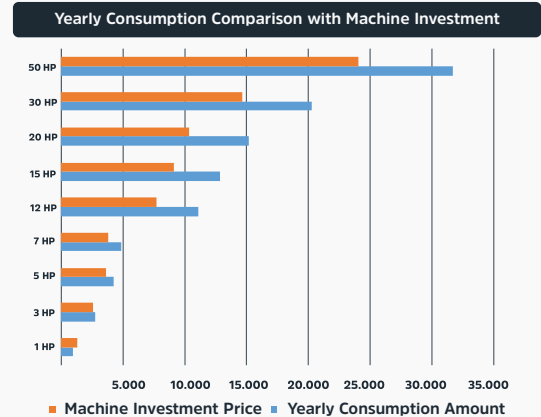


## Intelligent Cold Room Management

Octosense AIO is a smart control unit developed to increase energy efficiency and reduce maintenance needs in cold room systems. By continuously monitoring room and evaporator temperatures, it only activates compressors and fans when necessary, thereby preventing unnecessary energy consumption and extending equipment life. Its algorithm, which analyses usage intensity and automatically adjusts set values, increases cooling capacity during peak periods while reducing energy requirements during low usage. The system manages the defrost process based on the temperature of the battery surface, preventing unnecessary defrosts and, in most cases, performing only one safety defrost per day, thereby avoiding additional heat load in the room. Octosense AIO learns operational patterns over time, dynamically optimising fan and defrost processes to provide continuous stable temperature control and deliver high performance with low energy consumption.



	Compressor Model	HP	Yearly Energy Consumption	Electricity Price (kWh)	Yearly Consumption Amount	Machine Investment Price	Elec. Cost / Invest. Cost	Gain with 30% Saving
Cold Storage	CAJ9513Z-FZ	1	6.426 kW	€ 0,15	€ 964	€ 1.314	73%	€ 289
	FH4538Z-XG	3	18.317 kW	€ 0,15	€ 2.748	€ 2.568	107%	€ 824
	TAG4561Z-TZ	5	28.363 kW	€ 0,15	€ 4.254	€ 3.606	118%	€ 1.276
	TAG4573Z-TZ	7	32.490 kW	€ 0,15	€ 4.874	€ 3.822	128%	€ 1.462
	4TES-12Y	12	73.961 kW	€ 0,15	€ 11.094	€ 7.733	143%	€ 3.328
	4PES-15Y	15	85.733 kW	€ 0,15	€ 12.860	€ 9.124	141%	€ 3.858
	4NES-20Y	20	101.152 kW	€ 0,15	€ 15.173	€ 10.331	147%	€ 4.552
	4GE-30Y	30	135.135 kW	€ 0,15	€ 20.270	€ 14.645	138%	€ 6.081
	6FE-50Y	50	211.236 kW	€ 0,15	€ 31.685	€ 24.041	132%	€ 9.506



### Application 1 Carrefour

Total Daily Electricity Consumption with OCTOTENSE (kWh)	Total Daily Electricity Consumption with Current Device (kWh)
175,225	46,28
81,498	65,19
103,699	81,89
95,460	101,48
142,533	102,18
140,527	112,59
106,640	120,89
108,196	45,03
112,097	63,36
157,097	81,99
<b>Total Electricity Consumption: 1.223.580 kWh</b>	<b>Total Electricity Consumption: 820.909 kWh</b>

**Table 1.3:** Comparison of Ten-Day Average Electricity Consumption with 32% Energy Savings

### Application 2

Comparison of Daily Average Electricity Consumption in Different Time Periods		
	Current Device	OCTOSENSE
Corridor (kWh)	76,10	62,60
Deep Freeze 1 (kWh)	135,51	147,69
Deep Freeze 2 (kWh)	71,48	134,13
Corridor (kWh)	133,09	79,36
Cold Room 1 (kWh)	200,32	63,07
Cold Room 2 (kWh)	60,50	109,34
Cold Room 3 (kWh)	141,94	78,89
Cold Room 4 (kWh)	206,52	28,83
Cold Room 5 (kWh)	86,43	83,09
Daily Average Total Electricity Consumption (kWh)	1.111,87	787,00
Estimated Annual Electricity Bill	101.458 TL	71.814 TL

**Table 1.2:** Comparison of 30-Day Average Electricity Consumption with 30% Energy Savings

### Application 3

Daily Consumption Amount (Current Device)	Daily Consumption Amount (OCTOSENSE)
85,64 kWh	54,66 kWh
93,06 kWh	60,67 kWh
91,62 kWh	60,98 kWh
85,44 kWh	73,01 kWh
81,66 kWh	60,23 kWh
86,23 kWh	31,42 kWh
48,82 kWh	56,12 kWh
75,31 kWh	79,16 kWh
99,07 kWh	87,88 kWh
94,05 kWh	73,42 kWh
85,33 kWh	84,85 kWh
84,63 kWh	61,35 kWh
82,02 kWh	57,94 kWh
<b>94,07 kWh</b>	<b>77,70 kWh</b>

**Table 1.2:** Bahar Hindi Electricity Consumption Report with 20% Energy Savings



Total Electrical Energy Consumption (kWh) According to TÜV SÜD Inspection Report		
	Standard Type 974 (kW/h)	OCTOSENSE (kW/h)
Stage 1	841,511	238,79
Stage 2	790,778	232,271
Total Consumption	1632,289	471,061

TÜV SÜD Türkiye - Report NO: TGK-12-P-10122

